

Split-2

For Bell / CCG orders

\*142134\*

So ship ASAP

Page 1

Work Order ID 142134-2

February 29, 2016 10:18:14 AM

Item ID: D3674-041

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Item Name: Bracket

Stop \*NS2\*

Start Date: 2/29/2016 Start Qty: 20.00

Required Date: 3/2/2016 Req'd Qty: 20.00

Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan: 54

Date: 20160229

Tooling:

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description                                                                            | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp             |
|--------------------------------|-----------------------------------------------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------------------|
| Draw Nbr                       | Revision Nbr                                                                                        |                      |         |        |              |               |               |                  |                            |
| D3674                          | Rev A                                                                                               |                      |         |        |              |               |               |                  |                            |
| 100                            |                                                                                                     | 0.00                 |         |        |              |               |               |                  |                            |
| *100*                          | BAND SAW                                                                                            |                      |         |        |              | 20            | 0             |                  | DAS<br>20<br>0.00 16-03-13 |
| Bandsaw                        | Memo                                                                                                | 0.00                 |         |        |              |               |               |                  |                            |
| Jeaspa Bandsaw                 | Cut blanks: (1.250" x 2.000") 5.400" long                                                           |                      |         |        |              |               |               |                  |                            |
| 110                            |                                                                                                     | 0.00                 |         |        |              |               |               |                  |                            |
| *110*                          | HAAS CNC VERTICAL MACHINING #1                                                                      |                      |         |        |              | 16            | 1             |                  | DAS<br>20<br>0.00 16-03-14 |
| HAAS 1                         | Memo                                                                                                | 0.00                 |         |        |              |               |               |                  |                            |
| HAAS CNC vertical machine #1   | 1-Machine D3674-1 as per Folio FA732 and Dwg D3674 Identify as D3674-12-Deburr3-Scribe batch number |                      |         |        |              |               |               |                  | 16/03/16                   |
| 120                            |                                                                                                     | 0.00                 |         |        |              |               |               |                  |                            |
| *120*                          | QC2- Inspect parts off machine FAI/FAIB                                                             |                      |         |        |              | 16            | 1             |                  | DAS<br>20<br>0.00 16-03-14 |
| QC                             | Memo                                                                                                | 0.00                 |         |        |              |               |               |                  |                            |
| Quality Control                |                                                                                                     |                      |         |        |              |               |               |                  |                            |

NCR →

DQA:

Date:

16.04.14

DART  
AEROSPACE

## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

16/02/30

Work Order update only

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                               |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                      |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------|--|
| Work Order: <u>142134</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | DISPOSITION                                   |  | AGAINST DEPARTMENT/PROCESS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                      |  |
| Part No. <u>D3674-041</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Rework <input type="checkbox"/>               |  | Skid-tube <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | Cross tube <input type="checkbox"/> |  | Water Jet <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | Engineering <input type="checkbox"/> |  |
| NCR No. <u>16-5685</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | Scrap <input checked="" type="checkbox"/>     |  | Machining <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Small Fab <input type="checkbox"/>  |  | Prod. Eng. Coord. <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | Quality <input type="checkbox"/>     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Use-as-is <input type="checkbox"/>            |  | Thermoforming <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | Finishing <input type="checkbox"/>  |  | Rec/Store/Packaging <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Other <input type="checkbox"/>       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Suspected Unapproved <input type="checkbox"/> |  | Large Fab <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | Composite <input type="checkbox"/>  |  | Supplier <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                      |  |
| Date: <u>16-03-17</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | Step #: <u>110</u>                            |  | QTY Effective: <u>①</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                     |  | MRB (QSI042) Approval                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                      |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                               |  | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                     |  | <u>PD 16-08-17</u><br>Completed By<br><u>16/03/16</u><br>Lead hand / Supervisor<br>Approval Verification<br><u>16-03-17</u><br>QC / QA Coordinator<br>Approval<br><u>16-03-17</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                      |  |
| <u>10-32nc</u><br><u>Tap Broke in piece!!</u><br><u>Due to wear of tool</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                               |  | <u>Scrap &amp; Replace</u><br><u>B132 117</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                      |  |
| <b>Root Cause</b><br>Environment <input type="checkbox"/> No Re-verification <input type="checkbox"/><br>Design <input type="checkbox"/> Operator <input type="checkbox"/><br>Doc/Data <input type="checkbox"/> Offset/Setup <input type="checkbox"/><br>Equip/Tooling <input checked="" type="checkbox"/> Supplier <input type="checkbox"/><br>Handling/Pre <input type="checkbox"/> Training <input type="checkbox"/><br>Material <input type="checkbox"/> Use for Testing <input type="checkbox"/><br>Internal Transport <input type="checkbox"/> Poor Information <input type="checkbox"/><br>Tribal Knowledge <input type="checkbox"/> Rushing <input type="checkbox"/><br>LOA <input type="checkbox"/> Product Improvement <input type="checkbox"/><br>Substation <input type="checkbox"/> Process Improvement <input type="checkbox"/><br>Past Expiry Date <input type="checkbox"/> Manufacturing Process <input type="checkbox"/><br>Misidentified <input type="checkbox"/> Past Due <input type="checkbox"/> |  |                                               |  | <b>FAULT CATEGORY</b><br>Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/><br>Bending <input type="checkbox"/> Set-up <input type="checkbox"/><br>Centre Not Concentric <input type="checkbox"/> BOM/Route <input type="checkbox"/><br>Cracks <input checked="" type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/><br>Crimp/Kink/Ripple/Wave <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/><br>Cuffs <input type="checkbox"/> Contamination <input type="checkbox"/><br>Crushing <input type="checkbox"/> Countersink <input type="checkbox"/><br>Heat Treat <input type="checkbox"/> Cut Too Short <input type="checkbox"/><br>Wave/Twist in Tube <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/><br>Marks/Chatter <input type="checkbox"/> Drill Holes <input type="checkbox"/><br>OTHER: <input type="checkbox"/> |  |                                     |  | Power Loss/Surge <input type="checkbox"/> Positioned Wrong <input type="checkbox"/><br>Folio/Program <input type="checkbox"/> Outside Dimensions <input type="checkbox"/><br>Grain <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/><br>Weld <input type="checkbox"/> Part Incorrect <input type="checkbox"/><br>Wrong Stock Pulled <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/><br>Out of Sequence <input type="checkbox"/> Part Moved <input type="checkbox"/><br>Off-set <input type="checkbox"/> Drawing <input type="checkbox"/><br>Misabeled <input type="checkbox"/> Finish <input type="checkbox"/><br>Fit/Function <input type="checkbox"/> Misread <input type="checkbox"/><br>Misaligned/off center <input type="checkbox"/> Turning Sequence <input type="checkbox"/> |  |                                      |  |



# Work Order ID 142134

February 29, 2016 10:18:14 AM

**\*142134\***

Page 2

Item ID: D3674-041

Accept

Revision ID:

Item Name: Bracket

Start Date: 2/29/2016 Start Qty: 20.00

Required Date: 3/2/2016 Req'd Qty: 20.00

Reference:

**\*20\***

**\*20\***

**\*N9000040100\***

Setup Start **\*NS1\***

Stop **\*NS2\***

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

**\*130\***

QC

Quality Control

QC8- Inspect parts - second check

0.00

Memo

0.00

216-3-17

140

**\*140\***

Small Fab

Small Fab

Small Fab

0.00

Memo

Assemble D3674-041 as per Dwg D3674

0.00

16X

16/03/21

DAS  
36  
9-89

150

**\*150\***

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

16

DAS  
38  
9-89

MAR 22 2016

# WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

|                                                              |                                                                                                                                                                                |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                       |  |                       |
|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------|--|-----------------------|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ | <b>DISPOSITION</b><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |  | <b>AGAINST DEPARTMENT/PROCESS</b><br>Skid-tube <input type="checkbox"/> Cross tube <input type="checkbox"/> Water Jet <input type="checkbox"/> Engineering <input type="checkbox"/><br>Machining <input type="checkbox"/> Small Fab <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Quality <input type="checkbox"/><br>Thermoforming <input type="checkbox"/> Finishing <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Other <input type="checkbox"/><br>Large Fab <input type="checkbox"/> Composite <input type="checkbox"/> Supplier <input type="checkbox"/> |  |                       |  |                       |
|                                                              | Date: _____                                                                                                                                                                    |  | Step #: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | QTY Effective : _____ |  | MRB (QSI042) Approval |

Description Work Order Deviation

Disposition

Completed By

Lead hand / Supervisor  
Approval Verification

QC / QA Coordinator  
Approval

## Root Cause

|                                             |                                                |
|---------------------------------------------|------------------------------------------------|
| Environment <input type="checkbox"/>        | No Re-verification <input type="checkbox"/>    |
| Design <input type="checkbox"/>             | Operator <input type="checkbox"/>              |
| Doc/Data <input type="checkbox"/>           | Offset/Setup <input type="checkbox"/>          |
| Equip/Tooling <input type="checkbox"/>      | Supplier <input type="checkbox"/>              |
| Handling/Pre <input type="checkbox"/>       | Training <input type="checkbox"/>              |
| Material <input type="checkbox"/>           | Use for Testing <input type="checkbox"/>       |
| Internal Transport <input type="checkbox"/> | Poor Information <input type="checkbox"/>      |
| Tribal Knowledge <input type="checkbox"/>   | Rushing <input type="checkbox"/>               |
| LOA <input type="checkbox"/>                | Product Improvement <input type="checkbox"/>   |
| Substation <input type="checkbox"/>         | Process Improvement <input type="checkbox"/>   |
| Past Expiry Date <input type="checkbox"/>   | Manufacturing Process <input type="checkbox"/> |
| Misidentified <input type="checkbox"/>      | Past Due <input type="checkbox"/>              |

|                                                 |
|-------------------------------------------------|
| Pressure/Forced <input type="checkbox"/>        |
| Bending <input type="checkbox"/>                |
| Centre Not Concentric <input type="checkbox"/>  |
| Cracks <input type="checkbox"/>                 |
| Crimp/Kink/Ripple/Wave <input type="checkbox"/> |
| Cuffs <input type="checkbox"/>                  |
| Crushing <input type="checkbox"/>               |
| Heat Treat <input type="checkbox"/>             |
| Wave/Twist in Tube <input type="checkbox"/>     |
| Marks/Chatter <input type="checkbox"/>          |

## FAULT CATEGORY

|                                                            |                                                |                                               |
|------------------------------------------------------------|------------------------------------------------|-----------------------------------------------|
| Temperature/Cure <input type="checkbox"/>                  | Power Loss/Surge <input type="checkbox"/>      | Positioned Wrong <input type="checkbox"/>     |
| Set-up <input type="checkbox"/>                            | Folio/Program <input type="checkbox"/>         | Outside Dimensions <input type="checkbox"/>   |
| BOM/Route <input type="checkbox"/>                         | Grain <input type="checkbox"/>                 | Over/Under tolerance <input type="checkbox"/> |
| Broken/Damage/Defect <input type="checkbox"/>              | Weld <input type="checkbox"/>                  | Part Incorrect <input type="checkbox"/>       |
| Inspection Incomplete/Unqualified <input type="checkbox"/> | Wrong Stock Pulled <input type="checkbox"/>    | Part Lost/Missing <input type="checkbox"/>    |
| Contamination <input type="checkbox"/>                     | Out of Sequence <input type="checkbox"/>       | Part Moved <input type="checkbox"/>           |
| Countersink <input type="checkbox"/>                       | Off-set <input type="checkbox"/>               | Drawing <input type="checkbox"/>              |
| Cut Too Short <input type="checkbox"/>                     | Mislabeled <input type="checkbox"/>            | Finish <input type="checkbox"/>               |
| Instructions Incomplete/Unclear <input type="checkbox"/>   | Fit/Function <input type="checkbox"/>          | Misread <input type="checkbox"/>              |
| Drill Holes <input type="checkbox"/>                       | Misaligned/off center <input type="checkbox"/> | Turning Sequence <input type="checkbox"/>     |

OTHER : \_\_\_\_\_



# Work Order ID 142134

February 29, 2016 10:18:14 AM

**\*142134\***

Page 3

Item ID: D3674-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Bracket  
 Start Date: 2/29/2016 Start Qty: 20.00 **\*20\*** Cust Item ID:  
 Required Date: 3/2/2016 Req'd Qty: 20.00 **\*20\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

| Sequence ID/<br>Work Center ID                | Operation<br>Description                                      | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp         |
|-----------------------------------------------|---------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|------------------------|
| 160<br><b>*160*</b><br>Packaging<br>Packaging | Identify as per dwg & Stock Location: <u>5050</u><br><br>Memo | 0.00<br><br>0.00     |         |        |              | 10            |               |                  | <u>MAR 22 2016</u>     |
| 170<br><b>*170*</b><br>QC<br>Quality Control  | QC21- Final Inspection - Work Order Release<br><br>Memo       | 0.00<br><br>0.00     |         |        |              |               |               |                  | <u>MCS MAR 22 2016</u> |

MCS MAR 22 2016

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                      | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>             Skid-tube <input type="checkbox"/><br/>             Machining <input type="checkbox"/><br/>             Thermoforming <input type="checkbox"/><br/>             Large Fab <input type="checkbox"/> </div> <div>             Cross tube <input type="checkbox"/><br/>             Small Fab <input type="checkbox"/><br/>             Finishing <input type="checkbox"/><br/>             Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/><br/>             Prod. Eng. Coord. <input type="checkbox"/><br/>             Rec/Store/Packaging <input type="checkbox"/><br/>             Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/><br/>             Quality <input type="checkbox"/><br/>             Other <input type="checkbox"/> </div> </div> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Date : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Step #: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | QTY Effective : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | MRB (QSI042) Approval                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                         | Completed By                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                         | Lead hand / Supervisor<br>Approval Verification                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                         | QC / QA Coordinator<br>Approval                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Root Cause                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | FAULT CATEGORY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Environment <input type="checkbox"/><br>Design <input type="checkbox"/><br>Doc/Data <input type="checkbox"/><br>Equip/Tooling <input type="checkbox"/><br>Handling/Pre <input type="checkbox"/><br>Material <input type="checkbox"/><br>Internal Transport <input type="checkbox"/><br>Tribal Knowledge <input type="checkbox"/><br>LOA <input type="checkbox"/><br>Substation <input type="checkbox"/><br>Past Expiry Date <input type="checkbox"/><br>Misidentified <input type="checkbox"/> | No Re-verification <input type="checkbox"/><br>Operator <input type="checkbox"/><br>Offset/Setup <input type="checkbox"/><br>Supplier <input type="checkbox"/><br>Training <input type="checkbox"/><br>Use for Testing <input type="checkbox"/><br>Poor Information <input type="checkbox"/><br>Rushing <input type="checkbox"/><br>Product Improvement <input type="checkbox"/><br>Process Improvement <input type="checkbox"/><br>Manufacturing Process <input type="checkbox"/><br>Past Due <input type="checkbox"/> | Pressure/Forced <input type="checkbox"/><br>Bending <input type="checkbox"/><br>Centre Not Concentric <input type="checkbox"/><br>Cracks <input type="checkbox"/><br>Crimp/Kink/Ripple/Wave <input type="checkbox"/><br>Cuffs <input type="checkbox"/><br>Crushing <input type="checkbox"/><br>Heat Treat <input type="checkbox"/><br>Wave/Twist in Tube <input type="checkbox"/><br>Marks/Chatter <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Temperature/Cure <input type="checkbox"/><br>Set-up <input type="checkbox"/><br>BOM/Route <input type="checkbox"/><br>Broken/Damage/Defect <input type="checkbox"/><br>Inspection Incomplete/Unqualified <input type="checkbox"/><br>Contamination <input type="checkbox"/><br>Countersink <input type="checkbox"/><br>Cut Too Short <input type="checkbox"/><br>Instructions Incomplete/Unclear <input type="checkbox"/><br>Drill Holes <input type="checkbox"/> | Power Loss/Surge <input type="checkbox"/><br>Folio/Program <input type="checkbox"/><br>Grain <input type="checkbox"/><br>Weld <input type="checkbox"/><br>Wrong Stock Pulled <input type="checkbox"/><br>Out of Sequence <input type="checkbox"/><br>Off-set <input type="checkbox"/><br>Mislabeled <input type="checkbox"/><br>Fit/Function <input type="checkbox"/><br>Misaligned/off center <input type="checkbox"/> | Positioned Wrong <input type="checkbox"/><br>Outside Dimensions <input type="checkbox"/><br>Over/Under tolerance <input type="checkbox"/><br>Part Incorrect <input type="checkbox"/><br>Part Lost/Missing <input type="checkbox"/><br>Part Moved <input type="checkbox"/><br>Drawing <input type="checkbox"/><br>Finish <input type="checkbox"/><br>Misread <input type="checkbox"/><br>Turning Sequence <input type="checkbox"/> |
| OTHER : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                   |

# Picklist Print

February 29, 2016 10:18:47 AM

Page 1

Work Order ID: 142134

Parent Item: D3674-041

Parent Item Name: Bracket

**\*142134\***

**\*D3674-041\***

Start Date: 2/29/2016

Required Date: 3/2/2016

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP Rev:A New Issue 08-04-25 JLM Verified By:DD

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| D3121-241                       |                        | Manufactured  | No          |                     |                  | 100             | Each               | 22.0000        | 1           | 20           |               |                |        |

**\*D3121-241\***

Bearing Assembly

\*\*

Location

Loc Qty

Loc Code

FG

14

89826

4

95927

10

ST019

8

140218

8

D3121-21

Manufactured No

140

Each

51.0000

1

20

**\*D3121-21\***

Bolt

\*\*

Location

Loc Qty

Loc Code

ST018

51

132416

4

136387

25

139463

22

M174B1.250X02.000

Purchased

No

140

f

14.4200

0.55

11.57895

**\*M174B1 250X02 000\***

17-4 SS Bar 1.250 x 2.00

\*\*

Location

Loc Qty

Loc Code

MAT010

14.42

M131752

1.72

M132117

12.7

16/03/21

DAS  
36  
9-89

B142527

16

16/03/21

DAS  
36  
9-89

20/16

DAS

20

9-89

16-03-14

9.400'

9.400' + .500'

DA:

20

9-8

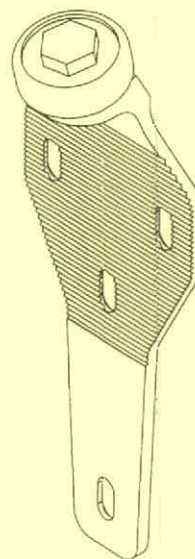
16-03-17







| QTY<br>-041 | PART NUMBER | DESCRIPTION             |
|-------------|-------------|-------------------------|
| X           | D3674-041   | ROLLER BRACKET ASSEMBLY |
| 1           | D3121-21    | BOLT                    |
| 1           | D3121-241   | BEARING ASSEMBLY        |
| 1           | D3674-1     | BRACKET                 |



D3674-041 BRACKET ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: N/A
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.23 lbs
- 8) TORQUE D3121-21 BOLT 15-25 in lbs (1.7-2.8 Nm)

RELEASED  
08-06-26-1100

20160229

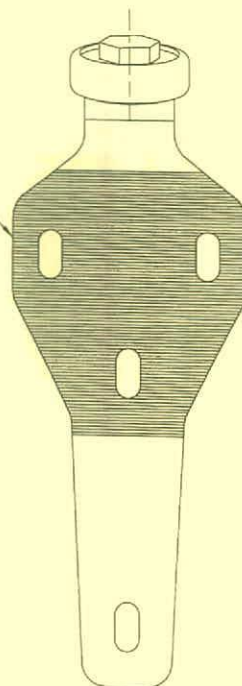
54 142134

|           |             |                                                                                                                                                                                                                                |              |
|-----------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| A         | NEW ISSUE   | AJS                                                                                                                                                                                                                            | 08.03.26     |
| REV       | DESCRIPTION | BY                                                                                                                                                                                                                             | DATE         |
| DESIGN    | AJS         | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                              |              |
| DRAWN     | ASB         | DRAWING NO.                                                                                                                                                                                                                    | REV. A       |
| CHECKED   |             | D3674                                                                                                                                                                                                                          | SHEET 1 OF 4 |
| MFG APPR. |             | TITLE                                                                                                                                                                                                                          | SCALE        |
| APPROVED  |             | ROLLER BRACKET ASSEMBLY                                                                                                                                                                                                        | NTS          |
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D3674-1 BRACKET



D3674-041 BRACKET ASSEMBLY

D3121-21 BOLT

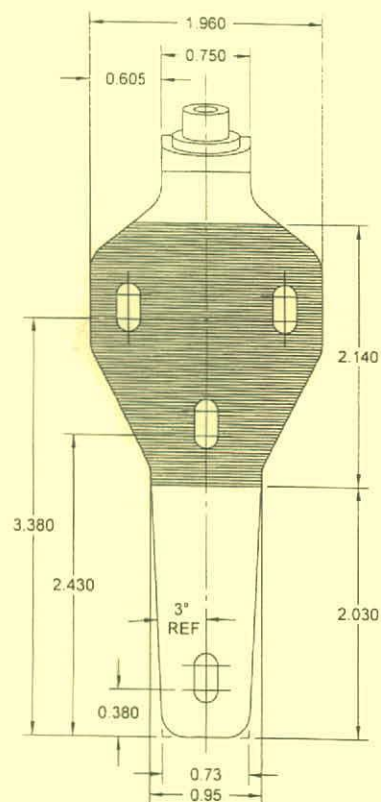
D3121-241 BEARING ASSEMBLY



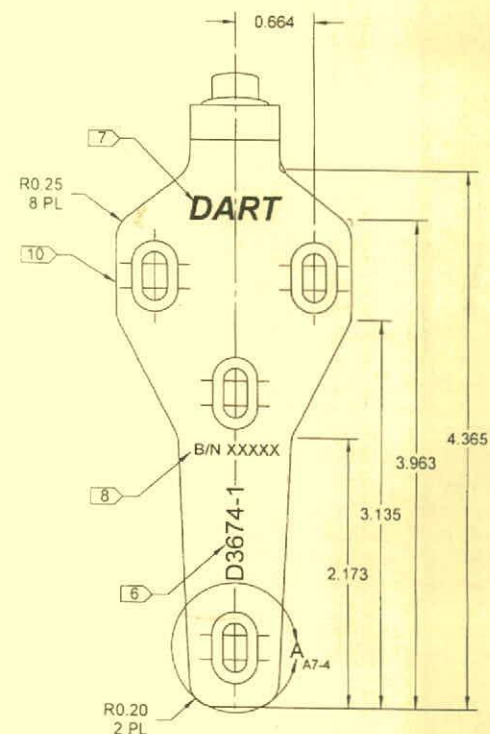
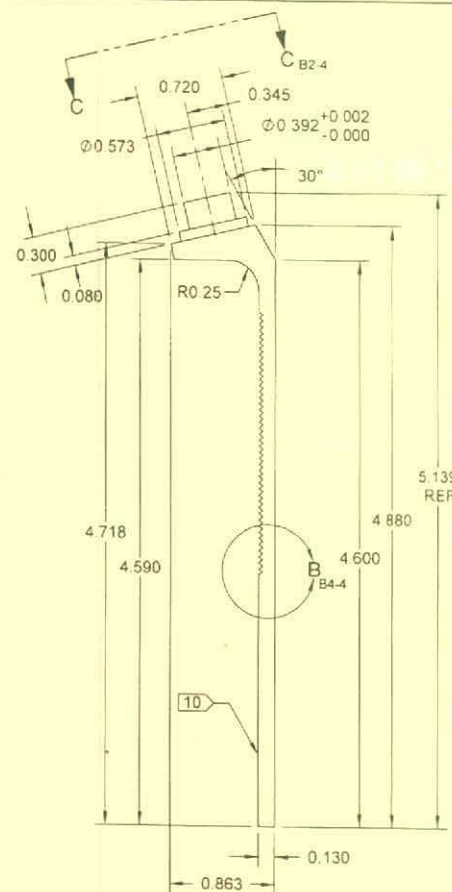
RELEASED  
08-03-26

|           |                    |                                                                                                                                                                                                                                                                                                |        |
|-----------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| DESIGN    | AJS                | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                       |        |
| DRAWN     | <i>[Signature]</i> |                                                                                                                                                                                                                                                                                                |        |
| CHECKED   | <i>[Signature]</i> | DRAWING NO.<br>D3674                                                                                                                                                                                                                                                                           | REV. A |
| MFG APPR. | <i>[Signature]</i> | SHEET 2 OF 4                                                                                                                                                                                                                                                                                   |        |
| APPROVED  | <i>[Signature]</i> | TITLE                                                                                                                                                                                                                                                                                          | SCALE  |
| DE APPR   | <i>[Signature]</i> | ROLLER BRACKET ASSEMBLY                                                                                                                                                                                                                                                                        | NTS    |
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**D3674-1 BRACKET**



**NOTES**

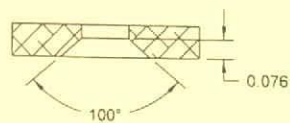
- 1) MATERIAL: 17-4 PH. STAINLESS STEEL BAR  
PER AMS 5604/5643  
GRAIN DIRECTION MUST BE ALONG THE LENGTH OF THE BRACKET  
MINIMUM YIELD TENSILE STRENGTH = 100 ksi  
MINIMUM ULTIMATE TENSILE STRENGTH = 150 ksi  
(REF. DART SPEC. M17-4-8)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE WITH DART P/N "D3674-1" WITH 0.15 HIGH LETTERS TO A  
MAX DEPTH OF 0.010 IN AREA SHOWN
- 7) IDENTIFICATION: ENGRAVE DART LOGO WITH 0.20 HIGH LETTER TO A  
MAXIMUM DEPTH OF 0.010 IN AREA SHOWN
- 8) IDENTIFICATION: SCRIBE DART B/N USING VIBRATING STYLUS
- 9) WEIGHT: 0.03 lbs
- 10) BASIC PROFILE OF D3674-1 BRACKET TAKEN FROM D3121-141 REF.

**RELEASED**  
08 03 26

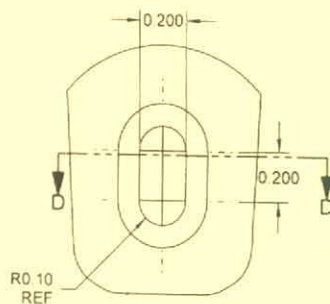
|                                                                                                                                                                                                                                |                    |                                        |              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------|--------------|
| DESIGN                                                                                                                                                                                                                         | AJS                | <b>DART AEROSPACE LTD</b>              |              |
| DRAWN                                                                                                                                                                                                                          | AJS                | HAWKESBURY, ONTARIO, CANADA            |              |
| CHECKED                                                                                                                                                                                                                        | <i>[Signature]</i> | DRAWING NO.                            | REV. A       |
| MFG APPR.                                                                                                                                                                                                                      | <i>[Signature]</i> | D3674                                  | SHEET 3 OF 4 |
| APPROVED                                                                                                                                                                                                                       | <i>[Signature]</i> | TITLE                                  | SCALE        |
| DE APPR.                                                                                                                                                                                                                       | <i>[Signature]</i> | ROLLER BRACKET ASSEMBLY                | NTS          |
| DATE                                                                                                                                                                                                                           | 08 03 26           | COPYRIGHT © 2006 BY DART AEROSPACE LTD |              |
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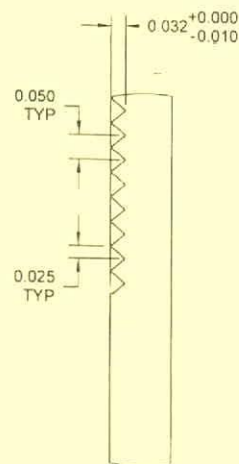
34



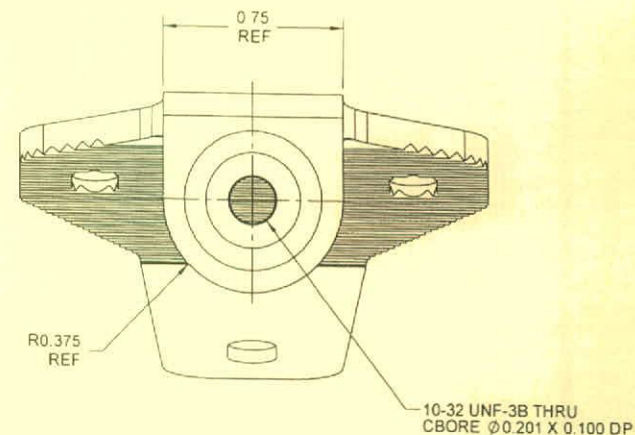
SECTION D-D



DETAIL A B2-3  
SCALE 2X  
(SLOT DETAIL 4PL)



DETAIL B C4-3  
SCALE 4X  
(RIDGE DETAIL)



VIEW C-C D3-3  
SCALE 2X

RELEASED  
08.06.26/16

|          |          |                                                                                                                                                                                                                                                                                |              |
|----------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| DESIGN   | AJS      | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                              |              |
| DRAWN    | AJS      |                                                                                                                                                                                                                                                                                |              |
| CHECKED  |          | DRAWING NO.<br>D3674                                                                                                                                                                                                                                                           | REV. A       |
| MFG APPR |          | TITLE<br>ROLLER BRACKET ASSEMBLY                                                                                                                                                                                                                                               | SCALE<br>NTS |
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| DE APPR. |          |                                                                                                                                                                                                                                                                                |              |
| DATE     | 08.03.26 |                                                                                                                                                                                                                                                                                |              |





|                              |  |                     |                    |
|------------------------------|--|---------------------|--------------------|
| <b>DART AEROSPACE LTD</b>    |  | <b>Work Order:</b>  | 142134             |
| <b>Description: Bracket</b>  |  | <b>Part Number:</b> | D3674-1            |
| <b>Inspection Dwg: D3674</b> |  | <b>Rev: A</b>       | <b>Page 1 of 2</b> |

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

| Drawing Dimension | Tolerance     | Actual Dimension | Accept | Reject | Method of Inspection | Comments    |
|-------------------|---------------|------------------|--------|--------|----------------------|-------------|
| 1.960             | +/-0.010      | 1.960            | ✓      |        | SLIO                 | Vern        |
| 0.750             | +/-0.010      | 0.750            | ✓      |        | "                    |             |
| 0.605             | +/-0.010      | 0.603            | ✓      |        | Height gauge         |             |
| 3.380             | +/-0.010      | 3.380            | ✓      |        | "                    |             |
| 2.430             | +/-0.010      | 2.430            | ✓      |        | SLIO                 |             |
| 0.380             | +/-0.010      | 0.380            | ✓      |        |                      |             |
| 0.73              | +/-0.030      | 0.730            | ✓      |        |                      |             |
| 0.95              | +/-0.030      | 0.950            | ✓      |        |                      |             |
| 2.140             | +/-0.010      | 2.135            | ✓      |        |                      |             |
| 2.030             | +/-0.010      | 2.020            | ✓      |        |                      |             |
| 4.718             | +/-0.010      | 4.715            | ✓      |        | Height gauge         |             |
| 4.590             | +/-0.010      | 4.587            | ✓      |        | "                    |             |
| 0.863             | +/-0.010      | 0.865            | ✓      |        | "                    |             |
| 0.130             | +/-0.010      | 0.125            | ✓      |        | SLIO                 |             |
| 4.600             | +/-0.010      | 4.600            | ✓      |        | "                    |             |
| 4.880             | +/-0.010      | 4.875            | ✓      |        | "                    |             |
| 5.139             | +/-0.010      | 5.135            | ✓      |        | "                    |             |
| R0.25             | +/-0.030      | 0.250            | ✓      |        | Rad gauge            |             |
| 0.080             | +/-0.010      | 0.080            | ✓      |        | SLIO                 |             |
| 0.300             | +/-0.010      | 0.300            | ✓      |        | "                    |             |
| 30°               | +/-0.5°       | 30°              | ✓      |        | Protractor           |             |
| Ø0.573            | +/-0.010      | 0.572            | ✓      |        | SLIO                 |             |
| 0.720             | +/-0.010      | 0.720            | ✓      |        | "                    |             |
| 0.345             | +/-0.010      | 0.345            | ✓      |        | "                    |             |
| Ø0.392            | +0.002/-0.000 | 0.3935           | ✓      |        | SLIO                 | Mic         |
| 2.173             | +/-0.010      | 2.173            | ✓      |        | SLIO                 |             |
| 3.135             | +/-0.010      | 3.135            | ✓      |        | "                    |             |
| 3.963             | +/-0.010      | 3.963            | ✓      |        | "                    |             |
| 4.365             | +/-0.010      | 4.365            | ✓      |        | "                    |             |
| 0.664             | +/-0.010      | 0.665            | ✓      |        | "                    |             |
| 100°              | +/-0.5°       | 100°             | ✓      |        | Protractor           |             |
| 0.076             | +/-0.010      | 0.076            | ✓      |        | SLIO                 |             |
| 0.200             | +/-0.010      | 0.200            | ✓      |        | "                    |             |
| 0.200             | +/-0.010      | 0.1955           | ✓      |        | "                    |             |
| R0.10             | +/-0.030      | 0.100            | ✓      |        | Rad gauge            |             |
| 0.032             | +0.000/-0.010 | 0.030            | ✓      |        | SLIO                 | Depth gauge |

